

## CLAIMS:

1. A process for isolating nucleic acid from a nucleic acid-containing sample, which comprises:
  - (a) providing a chaotrope;
  - (b) providing a nucleic acid binding solid phase capable of binding nucleic acid in the presence of the chaotrope;
  - (c) providing a source of  $\text{NH}_4^+$  or  $\text{NH}_3$ ;
  - (d) -contacting the sample with the nucleic acid binding solid phase in the presence of a liquid phase comprising the chaotrope and the  $\text{NH}_4^+$  or  $\text{NH}_3$ ; and
  - (e) optionally separating the solid phase with the nucleic acid bound thereto from the liquid phase.
2. A process according to claim 1, which further comprises a step of eluting the nucleic acid from the solid phase.
3. A process according to claim 1 or claim 2, wherein the sample comprises a biological sample.
4. A process according to claim 3, wherein the biological sample comprises a cellular sample.
5. A process according to claim 3 or claim 4, which further comprises a lysis step comprising subjecting the biological sample to conditions to lyse the sample.
6. A process according to claim 5, wherein the  $\text{NH}_4^+$  or  $\text{NH}_3$  is present during the lysis step.

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7. A process according to any preceding claim, wherein the nucleic acid comprises DNA.

8. A process according to claim 7, wherein the DNA comprises ds or ss DNA.

9. A process according to any of claims 1 to 6, wherein the nucleic acid comprises RNA.

10. A process according to claim 9, wherein the RNA comprises rRNA, mRNA or total RNA.

11. A process according to any preceding claim, wherein the chaotrope comprises a guanidium salt, urea, or an iodide, chlorate, perchlorate or (iso)thiocyanate.

12. A process according to any preceding claim, wherein the nucleic acid binding solid phase comprises a silica-based solid phase.

13. A process according to any preceding claim, wherein the solid phase is magnetic.

14. A process according to any preceding claim, wherein the source of  $\text{NH}_4^+$  or  $\text{NH}_3$  comprises a solution of ammonia.

15. A process according to any preceding claim, wherein the source of  $\text{NH}_4^+$  or  $\text{NH}_3$  and the chaotrope are provided together as a solution.

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16. A kit for isolating nucleic acid from a nucleic acid-containing sample, which kit comprises:

- (a) a chaotrope;
- (b) a nucleic acid binding solid phase capable of binding nucleic acid in the presence of the chaotrope; and
- (c) a source of  $\text{NH}_4^+$  or  $\text{NH}_3$ .

17. A kit according to claim 16, which further comprises a solution for eluting the nucleic acid from the solid phase.

18. A kit according to claim 16 or claim 17, which further comprises a lysis solution for lysing biological samples.

19. A kit according to any of claims 16 to 18, wherein the nucleic acid binding solid phase comprises a silica-based solid phase.

20. A kit according to any of claims 16 to 19, wherein the solid phase is magnetic.

21. A kit according to any of claims 16 to 20, wherein the source of  $\text{NH}_4^+$  or  $\text{NH}_3$  comprises a solution of ammonia.

22. A kit according to any of claims 16 to 21, wherein the source of  $\text{NH}_4^+$  or  $\text{NH}_3$  and the chaotrope are provided together as a solution.